IN THE CLAIMS:

Please amend claims 7-9 as follows:

1-6. (Cancelled)

7. (Currently Amended) A magnetic sensor head that senses an external magnetic field using a spin-filtered sensor current flowing through a non-magnetic layer, and further comprising:

a pair of ferromagnetic bodies provided on the non-magnetic layer and positioned parallel to an axes of magnetization of each of the ferromagnetic bodies; and a power source that uses the ferromagnetic bodies as electrodes to supply the sensor current,

wherein the non-magnetic layer is formed of a semiconductor material; and wherein the axes of magnetization of one of the pair of ferromagnetic bodies changes so as to detect an external magnetic field, and

wherein said semiconductor material constituting said non-magnetic layer causes to flow a current therethrough from one of said ferromagnetic bodies to the other of said ferromagnetic bodies.

said magnetic head being used with a magnetic recording/reproducing apparatus for detecting a signal from a magnetic recording medium.

- 8. (Currently Amended) The magnetic sensor head as claimed in claim 7, wherein the semiconductor material is indium aluminum arsenide.
- 9. (Currently Amended) The magnetic sensor head as claimed in claim 7, wherein the semiconductor material is indium gallium arsenide.

10-11 (Cancelled)